Mine Cost Estimation Training Course

Professional Development Training Course Outline

Category	General Training	**Duration**	5 Days
Base Fee	$1,500 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

The Mine Cost Estimation Course is a comprehensive industry-focused program designed to equip mining professionals with advanced capabilities in cost modeling, financial forecasting, operational budgeting, mine planning economics, capital expenditure (CAPEX), operational expenditure (OPEX), digital mining analytics, resource optimization, and sustainable mining cost management. In today's highly competitive mining sector, organizations are under increasing pressure to improve profitability, reduce operational risks, optimize resource allocation, and implement data-driven cost control systems. Mine Cost Estimation Training Course delivers practical knowledge and globally aligned methodologies that empower participants to accurately estimate mining project costs across exploration, development, production, processing, logistics, closure, and rehabilitation phases.

The course integrates modern mining practices with AI-driven analytics, predictive cost estimation, ESG compliance, risk-adjusted budgeting, digital transformation in mining, benchmarking, sensitivity analysis, life-of-mine costing, and strategic investment evaluation. Participants will gain hands-on exposure to real-world case studies from surface and underground mining projects while mastering international best practices for project feasibility studies and mining financial decision-making. The program is ideal for organizations seeking to strengthen operational efficiency, improve project viability, and enhance long-term sustainability within the mining value chain.

Programme Curriculum

Mine Cost Estimation Training Course

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Course Duration

5 days

Course Objectives

1. Develop expertise in mine cost estimation and financial modeling
2. Apply AI-powered mining analytics for cost optimization
3. Understand CAPEX and OPEX forecasting techniques
4. Implement digital mine planning and budgeting systems
5. Enhance skills in resource allocation and productivity analysis
6. Conduct life-of-mine financial evaluations
7. Analyze risk-adjusted mining investment strategies
8. Improve cost control and operational efficiency frameworks
9. Master feasibility study and project valuation methodologies
10. Integrate ESG and sustainable mining cost practices
11. Utilize data-driven decision-making tools in mining operations
12. Perform sensitivity analysis and scenario planning
13. Benchmark mining projects using global best practices and KPI analytics

Target Audience

1. Mine Managers
2. Mining Engineers
3. Financial Analysts in Mining
4. Project Managers
5. Cost Estimators and Quantity Surveyors
6. Geologists and Resource Professionals
7. Procurement and Supply Chain Professionals
8. Operations and Production Supervisors

Course Modules

Module 1: Fundamentals of Mine Cost Estimation

- Principles of mining economics

- Types of mining costs and classifications
- Cost estimation methodologies
- Production cost structures
- Introduction to feasibility studies
- Case Study: Cost estimation framework for a new open-pit copper mining project

Module 2: CAPEX and OPEX Analysis

- Capital cost estimation techniques
- Operating cost analysis models
- Equipment lifecycle costing
- Budget preparation and forecasting
- Cost benchmarking strategies
- Case Study: CAPEX optimization for underground gold mine expansion

Module 3: Mine Planning and Financial Forecasting

- Life-of-mine planning concepts
- Financial forecasting models
- Production scheduling economics
- Reserve and resource valuation
- Cash flow analysis
- Case Study: Financial forecasting for multi-phase coal mining operations

Module 4: Risk Management and Sensitivity Analysis

- Risk identification in mining projects
- Sensitivity and scenario analysis
- Monte Carlo simulation concepts
- Commodity price volatility assessment
- Contingency planning techniques
- Case Study: Risk-adjusted budgeting during mineral price fluctuations

Module 5: Digital Transformation and Mining Analytics

- AI and machine learning in mining costs
- Data visualization dashboards
- Predictive analytics applications
- Real-time operational monitoring
- ERP integration for mining finance
- Case Study: Digital cost optimization using predictive analytics in iron ore mining

Module 6: Procurement and Supply Chain Cost Optimization

- Strategic sourcing in mining
- Vendor cost analysis
- Inventory optimization
- Logistics and transportation costing
- Contract management strategies
- Case Study: Supply chain cost reduction in remote mining operations

Module 7: Sustainable Mining and ESG Costing

- ESG compliance cost considerations
- Environmental rehabilitation budgeting
- Carbon footprint cost analysis
- Sustainable mining investment planning
- Social impact costing frameworks
- Case Study: ESG-driven cost management for lithium mining projects

Module 8: Advanced Mine Financial Modeling

- Integrated mine financial models
- NPV and IRR calculations
- Project valuation techniques
- Investment decision frameworks
- Strategic financial reporting
- Case Study: Investment feasibility analysis for rare earth mineral projects

Training Methodology

This course employs a participatory and hands-on approach to ensure practical learning, including:

- Interactive lectures and presentations.
- Group discussions and brainstorming sessions.
- Hands-on exercises using real-world datasets.
- Role-playing and scenario-based simulations.
- Analysis of case studies to bridge theory and practice.
- Peer-to-peer learning and networking.
- Expert-led Q&A sessions.
- Continuous feedback and personalized guidance.

Register as a group from 3 participants for a Discount

Send us an email: info@fineskilltrainingcenter.org or call *+254769199797*

Certification

Upon successful completion of this training, participants will be issued with a globally- recognized certificate.

Tailor-Made Course

We also offer tailor-made courses based on your needs.

Key Notes

a. The participant must be conversant with English.

b. Upon completion of training the participant will be issued with an Authorized Training Certificate

c. Course duration is flexible and the contents can be modified to fit any number of days.

d. The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.

e. One-year post-training support Consultation and Coaching provided after the course.

f. Payment should be done at least a week before commence of the training, to Fineskill Training Center account, as indicated in the invoice so as to enable us prepare better for you.

Upcoming Scheduled Sessions

Start Date	End Date	Location	Price
21 Sep 2026	25 Sep 2026	Online	$1,000
21 Sep 2026	25 Sep 2026	Physical	$1,500
21 Sep 2026	25 Sep 2026	Physical	$0
21 Sep 2026	25 Sep 2026	Physical	$0
21 Sep 2026	25 Sep 2026	Physical	$0
21 Sep 2026	25 Sep 2026	Physical	$0
21 Sep 2026	25 Sep 2026	Physical	$0
21 Sep 2026	25 Sep 2026	Physical	$0

Ready to enroll or request a customized program? Book online or contact us:

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